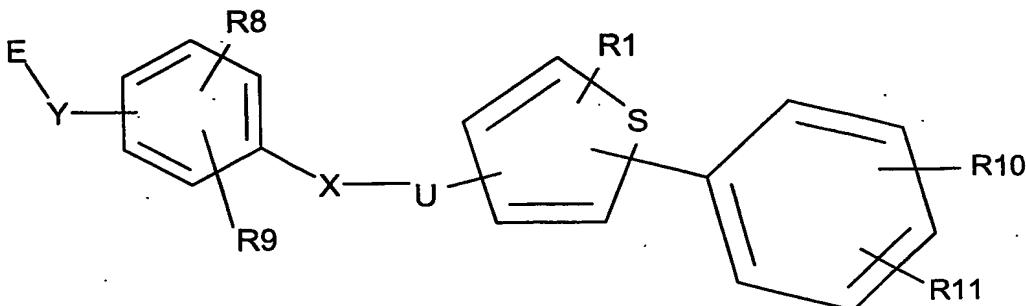


## CLAIMS

What is claimed is:

1. A compound of the Formula I':



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and stereoisomers, pharmaceutically acceptable salts, solvates and hydrates thereof, wherein:

10 (a) R1 is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>8</sub> alkyl, C<sub>1</sub>-C<sub>8</sub> alkenyl, phenyl, aryl-C<sub>1</sub>-4-heteroalkyl, heteroaryl, and C<sub>3</sub>-C<sub>6</sub> cycloalkylaryl-C<sub>0</sub>-2-alkyl, and wherein C<sub>1</sub>-C<sub>8</sub> alkyl is optionally substituted with from one to three substituents independently selected from R1'; and further wherein C<sub>1</sub>-C<sub>8</sub> alkenyl, phenyl, aryl-C<sub>1</sub>-4-heteroalkyl, heteroaryl, and C<sub>3</sub>-C<sub>6</sub> cycloalkylaryl-C<sub>0</sub>-2-alkyl, are each optionally substituted with from one to three substituents independently selected from R2;

15 (b) R1' are each independently selected from the group consisting of hydroxy, cyano, nitro, halo, oxo, C<sub>1</sub>-C<sub>6</sub> alkyl-COOR12, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> haloalkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyloxy, C<sub>3</sub>-C<sub>7</sub> cycloalkyl, aryloxy, aryl-C<sub>1</sub>-4-alkyl, C(O)R13, COOR14, OC(O)R15, OS(O)<sub>2</sub>R16, N(R17)<sub>2</sub>, NR18C(O)R19, NR20SO<sub>2</sub>R21, SR22,

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S(O)R23, S(O)<sub>2</sub>R24, and S(O)<sub>2</sub>N(R25)<sub>2</sub>; R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24 and R25 are each independently selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl and aryl;

(ii) each R<sup>7</sup> is independently selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub> haloalkyl, aryl C<sub>0</sub>-C<sub>4</sub> alkyl and C<sub>1</sub>-C<sub>6</sub> alkyl;

5 (iii) R<sub>3</sub> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>5</sub> alkyl, and C<sub>1</sub>-C<sub>5</sub> alkoxy; and

(iv) R<sub>4</sub> is selected from the group consisting of H, C<sub>1</sub>-C<sub>5</sub> alkyl, C<sub>1</sub>-C<sub>5</sub> alkoxy, aryloxy, C<sub>3</sub>-C<sub>6</sub> cycloalkyl, and aryl C<sub>0</sub>-C<sub>4</sub> alkyl, and R<sub>3</sub> and R<sub>4</sub> are optionally combined to form a C<sub>3</sub>-C<sub>4</sub> cycloalkyl, and wherein alkyl, alkoxy, cycloalkyl and aryl-alkyl are each optionally substituted with one to three each independently selected from R<sub>26</sub>;

10 with the proviso that when R<sub>1</sub> is C<sub>1</sub>-C<sub>8</sub> alkyl, Y is in a para substituted position with relation to X, and X is selected from the group consisting of a bond and O, then R<sub>4</sub> is selected from the group consisting of C<sub>1</sub>-C<sub>5</sub> alkoxy, aryloxy, and arylC<sub>0</sub>-C<sub>4</sub> alkyl; with the additional proviso that when R<sub>1</sub> is C<sub>1</sub>-C<sub>8</sub> alkyl, Y is in a para substituted position with relation to X, X is S, and U is optionally substituted methylene, then R<sub>4</sub> is selected from the group consisting of C<sub>1</sub>-C<sub>5</sub> alkoxy, aryloxy, and arylC<sub>0</sub>-C<sub>4</sub> alkyl;

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20 (h) R<sub>8</sub> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkylenyl, and halo;

(i) R<sub>9</sub> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkylenyl, halo, aryl-C<sub>0</sub>-C<sub>4</sub> alkyl, heteroaryl, C<sub>1</sub>-C<sub>6</sub> allyl, and OR<sub>29</sub>, and wherein aryl-C<sub>0</sub>-C<sub>4</sub> alkyl, heteroaryl are each

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optionally substituted with from one to three independently selected from R27; R29 is selected from the group consisting of hydrogen and C<sub>1</sub>-C<sub>4</sub> alkyl;

5 (j) R<sub>10</sub>, R<sub>11</sub> are each independently selected from the group consisting of hydrogen, hydroxy, cyano, nitro, halo, oxo, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkyl-COOR<sub>12</sub>'', C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> haloalkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyloxy, C<sub>3</sub>-C<sub>7</sub> cycloalkyl, aryl-C<sub>0-4</sub>-alkyl, aryl-C<sub>1-4</sub>-heteroalkyl, heteroaryl-C<sub>0-4</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub> cycloalkylaryl-C<sub>0-2</sub>-alkyl, aryloxy, C(O)R<sub>13</sub>', COOR<sub>14</sub>', OC(O)R<sub>15</sub>', OS(O)<sub>2</sub>R<sub>16</sub>', N(R<sub>17</sub>')<sub>2</sub>, NR<sub>18</sub>'C(O)R<sub>19</sub>', NR<sub>20</sub>'SO<sub>2</sub>R<sub>21</sub>', SR<sub>22</sub>', S(O)R<sub>23</sub>', S(O)<sub>2</sub>R<sub>24</sub>', and S(O)<sub>2</sub>N(R<sub>25</sub>')<sub>2</sub>; and wherein aryl-C<sub>0-4</sub>-alkyl, aryl-C<sub>1-4</sub>-heteroalkyl, heteroaryl-C<sub>0-4</sub>-alkyl, and C<sub>3</sub>-C<sub>6</sub> cycloalkylaryl-C<sub>0-2</sub>-alkyl are each optionally substituted with from one to three independently selected from R<sub>28</sub>;

10 (k) R<sub>12</sub>', R<sub>12</sub>'', R<sub>13</sub>', R<sub>14</sub>', R<sub>15</sub>', R<sub>16</sub>', R<sub>17</sub>', R<sub>18</sub>', R<sub>19</sub>', R<sub>20</sub>', R<sub>21</sub>', R<sub>22</sub>', R<sub>23</sub>', R<sub>24</sub>', and R<sub>25</sub>' are each independently selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl and aryl; and

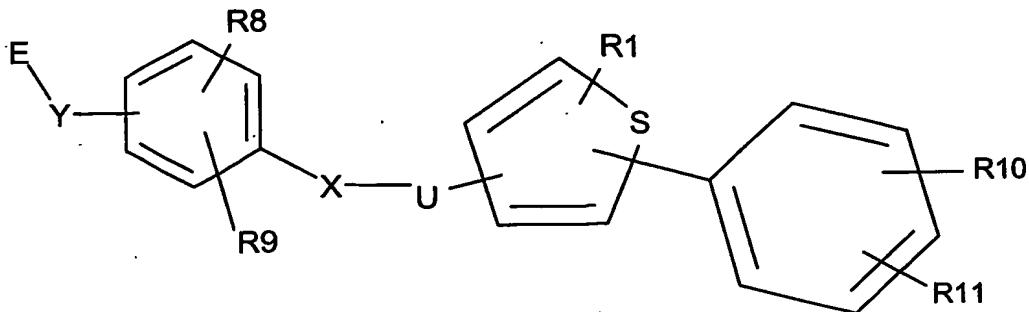
15 (l) R<sub>30</sub> is selected from the group consisting of C<sub>1</sub>-C<sub>6</sub> alkyl, aryl-C<sub>0-4</sub>-alkyl, aryl-C<sub>1-4</sub>-heteroalkyl, heteroaryl-C<sub>0-4</sub>-alkyl, and C<sub>3</sub>-C<sub>6</sub> cycloalkylaryl-C<sub>0-2</sub>-alkyl, and wherein C<sub>1</sub>-C<sub>6</sub> alkyl, aryl-C<sub>0-4</sub>-alkyl, aryl-C<sub>1-4</sub>-heteroalkyl, heteroaryl-C<sub>0-4</sub>-alkyl, and C<sub>3</sub>-C<sub>6</sub> cycloalkylaryl-C<sub>0-2</sub>-alkyl are each optionally substituted with from one to three substituents each independently selected from R<sub>31</sub>.

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2. A compound of the Formula I'':



and stereoisomers, pharmaceutically acceptable salts, solvates and hydrates thereof, wherein:

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(a) R1 is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>8</sub> alkyl, C<sub>1</sub>-C<sub>8</sub> alkenyl, phenyl, aryl-C<sub>1</sub>-C<sub>4</sub>-heteroalkyl, heteroaryl, and C<sub>3</sub>-C<sub>6</sub> cycloalkylaryl-C<sub>0</sub>-2-alkyl, and wherein C<sub>1</sub>-C<sub>8</sub> alkyl is optionally substituted with from one to three substituents independently selected from R1'; and further wherein C<sub>1</sub>-C<sub>8</sub> alkenyl, phenyl, aryl-C<sub>1</sub>-C<sub>4</sub>-heteroalkyl, heteroaryl, and C<sub>3</sub>-C<sub>6</sub> cycloalkylaryl-C<sub>0</sub>-2-alkyl, are each optionally substituted with from one to three substituents independently selected from R2;

(b) R1' are each independently selected from the group consisting of hydroxy, cyano, nitro, halo, oxo, C<sub>1</sub>-C<sub>6</sub> alkyl-COOR12, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> haloalkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyloxy, C<sub>3</sub>-C<sub>7</sub> cycloalkyl, aryloxy, aryl-C<sub>1</sub>-C<sub>4</sub>-alkyl, C(O)R13, COOR14, OC(O)R15, OS(O)<sub>2</sub>R16, N(R17)<sub>2</sub>, NR18C(O)R19, NR20SO<sub>2</sub>R21, SR22, S(O)R23, S(O)<sub>2</sub>R24, and S(O)<sub>2</sub>N(R25)<sub>2</sub>; R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24 and R25 are each independently selected from the

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group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl and aryl;

5 (c) R<sub>2</sub>, R<sub>26</sub>, R<sub>27</sub>, R<sub>28</sub>, and R<sub>31</sub> are each independently selected from the group consisting of hydrogen, hydroxy, cyano, nitro, halo, oxo, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkyl-COOR<sub>12</sub>, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> haloalkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyloxy, C<sub>3</sub>-C<sub>7</sub> cycloalkyl, aryloxy, aryl-C<sub>0-4</sub>-alkyl, heteroaryl, heterocycloalkyl, C(O)R<sub>13</sub>, COOR<sub>14</sub>, OC(O)R<sub>15</sub>, OS(O)<sub>2</sub>R<sub>16</sub>, N(R<sub>17</sub>)<sub>2</sub>, NR<sub>18</sub>C(O)R<sub>19</sub>, NR<sub>20</sub>SO<sub>2</sub>R<sub>21</sub>, SR<sub>22</sub>, S(O)R<sub>23</sub>, S(O)<sub>2</sub>R<sub>24</sub>, and S(O)<sub>2</sub>N(R<sub>25</sub>)<sub>2</sub>;

10 (d) X is selected from the group consisting of O, S, S(O)<sub>2</sub>, N and a bond;

15 (e) U is an aliphatic linker wherein one carbon atom of the aliphatic linker is optionally replaced with O, NH or S, and wherein such aliphatic linker is substituted with from one to four substituents each independently selected from R<sub>30</sub>;

20 (f) Y is selected from the group consisting of C, O, S, NH and a single bond;

25 (g) E is C(R<sub>3</sub>)(R<sub>4</sub>)A or A and wherein

(i) A is selected from the group consisting of carboxyl, tetrazole, C<sub>1</sub>-C<sub>6</sub> alkynitrile, carboxamide, sulfonamide and acylsulfonamide; wherein sulfonamide, acylsulfonamide and tetrazole are each optionally substituted with from one to two groups independently selected from R<sup>7</sup>;

30 (ii) each R<sup>7</sup> is independently selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub> haloalkyl, aryl C<sub>0</sub>-C<sub>4</sub> alkyl and C<sub>1</sub>-C<sub>6</sub> alkyl;

5 (iii) R3 is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>5</sub> alkyl, and C<sub>1</sub>-C<sub>5</sub> alkoxy; and

(iv) R4 is selected from the group consisting of H, C<sub>1</sub>-C<sub>5</sub> alkyl, C<sub>1</sub>-C<sub>5</sub> alkoxy, aryloxy, C<sub>3</sub>-C<sub>6</sub> cycloalkyl, and aryl C<sub>0</sub>-C<sub>4</sub> alkyl, and R3 and R4 are optionally combined to form a C<sub>3</sub>-C<sub>4</sub> cycloalkyl, and wherein alkyl, alkoxy, cycloalkyl and aryl-alkyl are each optionally substituted with one to three each independently selected from R26;

10 with the proviso that when R1 is C<sub>1</sub>-C<sub>8</sub> alkyl, Y is in a para substituted position with relation to X, and X is selected from the group consisting of a bond and O, then R4 is selected from the group consisting of C<sub>1</sub>-C<sub>5</sub> alkoxy, aryloxy, and arylC<sub>0</sub>-C<sub>4</sub> alkyl; with the additional proviso that when R1 is C<sub>1</sub>-C<sub>8</sub> alkyl, Y is in a para substituted position with relation to X, X is S, and U is optionally substituted methylene, then R4 is selected from the group consisting of C<sub>1</sub>-C<sub>5</sub> alkoxy, aryloxy, and arylC<sub>0</sub>-C<sub>4</sub> alkyl;

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20 (h) R8 is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkylenyl, and halo;

25 (i) R9 is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkylenyl, halo, aryl-C<sub>0</sub>-C<sub>4</sub> alkyl, heteroaryl, C<sub>1</sub>-C<sub>6</sub> allyl, and OR29, and wherein aryl-C<sub>0</sub>-C<sub>4</sub> alkyl, heteroaryl are each optionally substituted with from one to three independently selected from R27; R29 is selected

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from the group consisting of hydrogen and C<sub>1</sub>-C<sub>4</sub> alkyl;

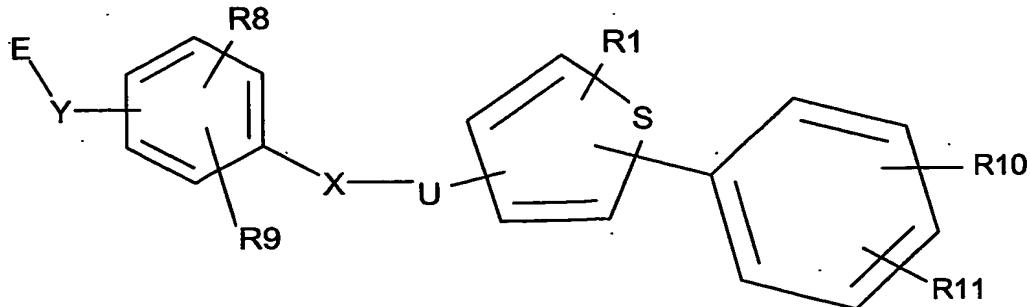
5 (j) R<sub>10</sub>, R<sub>11</sub> are each independently selected from the group consisting of hydrogen, hydroxy, cyano, nitro, halo, oxo, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkyl-COOR<sub>12</sub>'', C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> haloalkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyloxy, C<sub>3</sub>-C<sub>7</sub> cycloalkyl, aryl-C<sub>0-4</sub>-alkyl, aryl-C<sub>1-4</sub>-heteroalkyl, heteroaryl-C<sub>0-4</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub> cycloalkylaryl-C<sub>0-2</sub>-alkyl, aryloxy, C(O)R<sub>13</sub>', COOR<sub>14</sub>', OC(O)R<sub>15</sub>', OS(O)<sub>2</sub>R<sub>16</sub>', N(R<sub>17</sub>')<sub>2</sub>, NR<sub>18</sub>'C(O)R<sub>19</sub>', NR<sub>20</sub>'SO<sub>2</sub>R<sub>21</sub>', SR<sub>22</sub>', S(O)R<sub>23</sub>', S(O)<sub>2</sub>R<sub>24</sub>', and S(O)<sub>2</sub>N(R<sub>25</sub>')<sub>2</sub>; and wherein aryl-C<sub>0-4</sub>-alkyl, aryl-C<sub>1-4</sub>-heteroalkyl, heteroaryl-C<sub>0-4</sub>-alkyl, and C<sub>3</sub>-C<sub>6</sub> cycloalkylaryl-C<sub>0-2</sub>-alkyl are each optionally substituted with from one to three independently selected from R<sub>28</sub>;

10 (k) R<sub>12</sub>', R<sub>12</sub>'', R<sub>13</sub>', R<sub>14</sub>', R<sub>15</sub>', R<sub>16</sub>', R<sub>17</sub>', R<sub>18</sub>', R<sub>19</sub>', R<sub>20</sub>', R<sub>21</sub>', R<sub>22</sub>', R<sub>23</sub>', R<sub>24</sub>', and R<sub>25</sub>' are each independently selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl and aryl; and

15 (l) R<sub>30</sub> is selected from the group consisting of C<sub>1</sub>-C<sub>6</sub> alkyl, aryl-C<sub>0-4</sub>-alkyl, aryl-C<sub>1-4</sub>-heteroalkyl, heteroaryl-C<sub>0-4</sub>-alkyl, and C<sub>3</sub>-C<sub>6</sub> cycloalkylaryl-C<sub>0-2</sub>-alkyl, and wherein C<sub>1</sub>-C<sub>6</sub> alkyl, aryl-C<sub>0-4</sub>-alkyl, aryl-C<sub>1-4</sub>-heteroalkyl, heteroaryl-C<sub>0-4</sub>-alkyl, and C<sub>3</sub>-C<sub>6</sub> cycloalkylaryl-C<sub>0-2</sub>-alkyl are each optionally substituted with from one to three substituents each independently selected from R<sub>31</sub>.

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3. A compound of the Formula I''' :



and stereoisomers, pharmaceutically acceptable salts, solvates and hydrates thereof, wherein:

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- (m) R1 is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>8</sub> alkyl, C<sub>1</sub>-C<sub>8</sub> alkenyl, phenyl, aryl-C<sub>1</sub>-4-heteroalkyl, heteroaryl, and C<sub>3</sub>-C<sub>6</sub> cycloalkylaryl-C<sub>0</sub>-2-alkyl, and wherein C<sub>1</sub>-C<sub>8</sub> alkyl is optionally substituted with from one to three substituents independently selected from R1'; and further wherein C<sub>1</sub>-C<sub>8</sub> alkenyl, phenyl, aryl-C<sub>1</sub>-4-heteroalkyl, heteroaryl, and C<sub>3</sub>-C<sub>6</sub> cycloalkylaryl-C<sub>0</sub>-2-alkyl, are each optionally substituted with from one to three substituents independently selected from R2;
- (n) R1' are each independently selected from the group consisting of hydroxy, cyano, nitro, halo, oxo, C<sub>1</sub>-C<sub>6</sub> alkyl-COOR12, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> haloalkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyloxy, C<sub>3</sub>-C<sub>7</sub> cycloalkyl, aryloxy, aryl-C<sub>1</sub>-4-alkyl, C(O)R13, COOR14, OC(O)R15, OS(O)<sub>2</sub>R16, N(R17)<sub>2</sub>, NR18C(O)R19, NR20SO<sub>2</sub>R21, SR22, S(O)R23, S(O)<sub>2</sub>R24, and S(O)<sub>2</sub>N(R25)<sub>2</sub>; R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24 and R25 are each independently selected from the

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group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl and aryl;

(o) R<sub>2</sub>, R<sub>26</sub>, R<sub>27</sub>, R<sub>28</sub>, and R<sub>31</sub> are each independently selected from the group consisting of hydrogen, hydroxy, cyano, nitro, halo, oxo, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkyl-COOR<sub>12</sub>, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> haloalkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyloxy, C<sub>3</sub>-C<sub>7</sub> cycloalkyl, aryloxy, aryl-C<sub>0-4</sub>-alkyl, heteroaryl, heterocycloalkyl, C(O)R<sub>13</sub>, COOR<sub>14</sub>, OC(O)R<sub>15</sub>, OS(O)<sub>2</sub>R<sub>16</sub>, N(R<sub>17</sub>)<sub>2</sub>, NR<sub>18</sub>C(O)R<sub>19</sub>, NR<sub>20</sub>SO<sub>2</sub>R<sub>21</sub>, SR<sub>22</sub>, S(O)R<sub>23</sub>, S(O)<sub>2</sub>R<sub>24</sub>, and S(O)<sub>2</sub>N(R<sub>25</sub>)<sub>2</sub>;

(p) X is selected from the group consisting of O, S, S(O)<sub>2</sub>, N and a bond;

(q) U is an aliphatic linker wherein one carbon atom of the aliphatic linker is optionally replaced with O, NH or S, and wherein such aliphatic linker is optionally substituted with from one to four substituents each independently selected from R<sub>30</sub>;

(r) Y is selected from the group consisting of C, O, S, NH and a single bond;

(s) E is C(R<sub>3</sub>)(R<sub>4</sub>)A or A and wherein

- (i) A is selected from the group consisting of carboxyl, tetrazole, C<sub>1</sub>-C<sub>6</sub> alkynitrile, carboxamide, sulfonamide and acylsulfonamide; wherein sulfonamide, acylsulfonamide and tetrazole are each optionally substituted with from one to two groups independently selected from R<sup>7</sup>;
- (ii) each R<sup>7</sup> is independently selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub> haloalkyl, aryl C<sub>0</sub>-C<sub>4</sub> alkyl and C<sub>1</sub>-C<sub>6</sub> alkyl;

(iii) R3 is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>5</sub> alkyl, and C<sub>1</sub>-C<sub>5</sub> alkoxy; and

(iv) R4 is selected from the group consisting of H, C<sub>1</sub>-C<sub>5</sub> alkyl, C<sub>1</sub>-C<sub>5</sub> alkoxy, aryloxy, C<sub>3</sub>-C<sub>6</sub> cycloalkyl, and aryl C<sub>0</sub>-C<sub>4</sub> alkyl, and R3 and R4 are optionally combined to form a C<sub>3</sub>-C<sub>4</sub> cycloalkyl, and wherein alkyl, alkoxy, cycloalkyl and aryl-alkyl are each optionally substituted with one to three each independently selected from R26;

10 with the proviso that when R1 is C<sub>1</sub>-C<sub>8</sub> alkyl, Y is in a para substituted position with relation to X, and X is selected from the group consisting of a bond and O, then R4 is selected from the group consisting of C<sub>1</sub>-C<sub>5</sub> alkoxy, aryloxy, and arylC<sub>0</sub>-C<sub>4</sub> alkyl; with the additional proviso that when R1 is C<sub>1</sub>-C<sub>8</sub> alkyl, Y is in a para substituted position with relation to X, X is S, and U is optionally substituted methylene, then R4 is selected from the group consisting of C<sub>1</sub>-C<sub>5</sub> alkoxy, aryloxy, and arylC<sub>0</sub>-C<sub>4</sub> alkyl;

15 with the further proviso that when Y is O then R4 is selected from the group consisting of C<sub>1</sub>-C<sub>5</sub> alkyl, C<sub>1</sub>-C<sub>5</sub> alkoxy, aryloxy, C<sub>3</sub>-C<sub>6</sub> cycloalkyl, and aryl C<sub>0</sub>-C<sub>4</sub> alkyl, and R3 and R4 are optionally combined to form a C<sub>3</sub>-C<sub>4</sub> cycloalkyl, and wherein alkyl, alkoxy, cycloalkyl and aryl-alkyl are each optionally substituted with one to three each independently selected from R26;

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(t) R8 is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkylene, and halo;

(u) R9 is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkylene, halo, aryl-C<sub>0</sub>-C<sub>4</sub> alkyl, heteroaryl, C<sub>1</sub>-C<sub>6</sub> allyl, and OR29, and wherein aryl-C<sub>0</sub>-C<sub>4</sub> alkyl, heteroaryl are each optionally substituted with from one to three independently selected from R27; R29 is selected from the group consisting of hydrogen and C<sub>1</sub>-C<sub>4</sub> alkyl;

(v) R10, R11 are each independently selected from the group consisting of hydrogen, hydroxy, cyano, nitro, halo, oxo, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkyl-COOR12'', C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> haloalkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyloxy, C<sub>3</sub>-C<sub>7</sub> cycloalkyl, aryl-C<sub>0</sub>-4-alkyl, aryl-C<sub>1</sub>-4-heteroalkyl, heteroaryl-C<sub>0</sub>-4-alkyl, C<sub>3</sub>-C<sub>6</sub> cycloalkylaryl-C<sub>0</sub>-2-alkyl, aryloxy, C(O)R13', COOR14', OC(O)R15', OS(O)<sub>2</sub>R16', N(R17')<sub>2</sub>, NR18'C(O)R19', NR20'SO<sub>2</sub>R21', SR22', S(O)R23', S(O)<sub>2</sub>R24', and S(O)<sub>2</sub>N(R25')<sub>2</sub>; and wherein aryl-C<sub>0</sub>-4-alkyl, aryl-C<sub>1</sub>-4-heteroalkyl, heteroaryl-C<sub>0</sub>-4-alkyl, and C<sub>3</sub>-C<sub>6</sub> cycloalkylaryl-C<sub>0</sub>-2-alkyl are each optionally substituted with from one to three independently selected from R28;

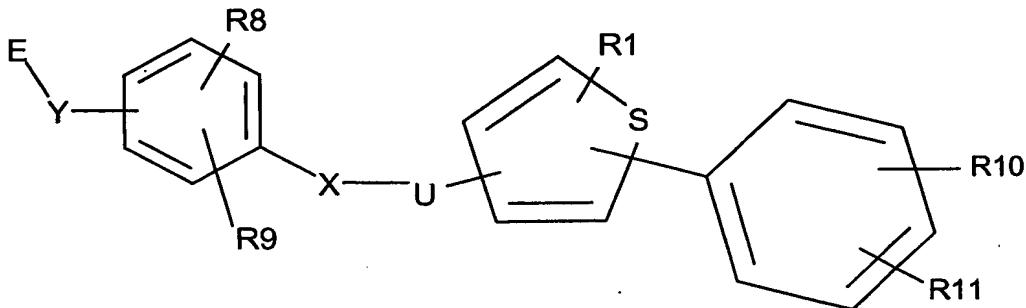
(w) R12', R12'', R13', R14', R15', R16', R17', R18', R19', R20', R21', R22', R23', R24', and R25' are each independently selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl and aryl; and

(x) R30 is selected from the group consisting of C<sub>1</sub>-C<sub>6</sub> alkyl, aryl-C<sub>0</sub>-4-alkyl, aryl-C<sub>1</sub>-4-heteroalkyl, heteroaryl-C<sub>0</sub>-4-alkyl, and C<sub>3</sub>-C<sub>6</sub> cycloalkylaryl-

$C_{0-2}$ -alkyl, and wherein  $C_1-C_6$  alkyl, aryl- $C_{0-4}$ -alkyl, aryl- $C_{1-4}$ -heteroalkyl, heteroaryl- $C_{0-4}$ -alkyl, and  $C_{3-C_6}$  cycloalkylaryl- $C_{0-2}$ -alkyl are each optionally substituted with from one to three substituents each independently selected from R31.

5

#### 4. A compound of the Formula I:



and stereoisomers, pharmaceutically acceptable salts,  
10 solvates and hydrates thereof, wherein:

15 (a) R1 is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>8</sub> alkyl, C<sub>1</sub>-C<sub>8</sub> alkenyl, phenyl, aryl-C<sub>1-4</sub>-heteroalkyl, heteroaryl, and C<sub>3</sub>-C<sub>6</sub> cycloalkylaryl-C<sub>0-2</sub>-alkyl, and wherein C<sub>1</sub>-C<sub>8</sub> alkyl is optionally substituted with from one to three substituents independently selected from R1'; and further wherein C<sub>1</sub>-C<sub>8</sub> alkenyl, phenyl, aryl-C<sub>1-4</sub>-heteroalkyl, heteroaryl, and C<sub>3</sub>-C<sub>6</sub> cycloalkylaryl-C<sub>0-2</sub>-alkyl, are each optionally substituted with from one to three substituents independently selected from R2;

20 (b) R1' are each independently selected from the group consisting of hydroxy, cyano, nitro, halo, oxo, C<sub>1</sub>-C<sub>6</sub> alkyl-COOR<sub>12</sub>, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> haloalkyl,

25

5                   C<sub>1</sub>-C<sub>6</sub> haloalkyloxy, C<sub>3</sub>-C<sub>7</sub> cycloalkyl, aryloxy, aryl-C<sub>1</sub>-<sub>4</sub>-alkyl, C(O)R13, COOR14, OC(O)R15, OS(O)<sub>2</sub>R16, N(R17)<sub>2</sub>, NR18C(O)R19, NR20SO<sub>2</sub>R21, SR22, S(O)R23, S(O)<sub>2</sub>R24, and S(O)<sub>2</sub>N(R25)<sub>2</sub>; R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24 and R25 are each independently selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl and aryl;

10                (c) R2, R26, R27, R28, and R31 are each independently selected from the group consisting of hydrogen, hydroxy, cyano, nitro, halo, oxo, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkyl-COOR12, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> haloalkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyloxy, C<sub>3</sub>-C<sub>7</sub> cycloalkyl, aryloxy, aryl-C<sub>0</sub>-<sub>4</sub>-alkyl, heteroaryl, heterocycloalkyl, C(O)R13, COOR14, OC(O)R15, OS(O)<sub>2</sub>R16, N(R17)<sub>2</sub>, NR18C(O)R19, NR20SO<sub>2</sub>R21, SR22, S(O)R23, S(O)<sub>2</sub>R24, and S(O)<sub>2</sub>N(R25)<sub>2</sub>;

15                (d) X is selected from the group consisting of O, S, S(O)<sub>2</sub>, N, and a bond;

20                (e) U is an aliphatic linker wherein one carbon atom of the aliphatic linker may be replaced with O, NH or S, and wherein such aliphatic linker is optionally substituted with R30;

25                (f) Y is selected from the group consisting of C, O, S, NH and a single bond;

30                (g) E is C(R3)(R4)A or A and wherein

                      (i) A is selected from the group consisting of carboxyl, tetrazole, C<sub>1</sub>-C<sub>6</sub> alkynitrile, carboxamide, sulfonamide and acylsulfonamide; wherein sulfonamide, acylsulfonamide and tetrazole are each optionally substituted with

from one to two groups independently selected from R<sup>7</sup>;

5 (ii) each R<sup>7</sup> is independently selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub> haloalkyl, aryl C<sub>0</sub>-C<sub>4</sub> alkyl and C<sub>1</sub>-C<sub>6</sub> alkyl;

(iii) R<sub>3</sub> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>5</sub> alkyl, and C<sub>1</sub>-C<sub>5</sub> alkoxy; and  
10 (iv) R<sub>4</sub> is selected from the group consisting of H, C<sub>1</sub>-C<sub>5</sub> alkyl, C<sub>1</sub>-C<sub>5</sub> alkoxy, aryloxy, C<sub>3</sub>-C<sub>6</sub> cycloalkyl, and aryl C<sub>0</sub>-C<sub>4</sub> alkyl, and R<sub>3</sub> and R<sub>4</sub> are optionally combined to form a C<sub>3</sub>-C<sub>4</sub> cycloalkyl, and wherein alkyl, alkoxy, cycloalkyl and aryl-alkyl are each optionally substituted with one to three each independently selected from R<sub>26</sub>;

15 with the proviso that when R<sub>1</sub> is C<sub>1</sub>-C<sub>8</sub> alkyl, Y is in a para substituted position with relation to X, and X is selected from the group consisting of a bond and O; then R<sub>4</sub> is selected from the group consisting of C<sub>1</sub>-C<sub>5</sub> alkoxy, aryloxy, and arylC<sub>0</sub>-C<sub>4</sub> alkyl; with the additional proviso that when R<sub>1</sub> is C<sub>1</sub>-C<sub>8</sub> alkyl, Y is in a para substituted position with relation to X, X is S, and U is optionally substituted methylene, then R<sub>4</sub> is selected from the group consisting of C<sub>1</sub>-C<sub>5</sub> alkoxy, aryloxy, and arylC<sub>0</sub>-C<sub>4</sub> alkyl;

20 (h) R<sub>8</sub> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkylenyl, and halo;

25 (i) R<sub>9</sub> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkylenyl, halo, aryl-

$C_0-C_4$  alkyl, heteroaryl,  $C_1-C_6$  allyl, and OR29, and wherein aryl- $C_0-C_4$  alkyl, heteroaryl are each optionally substituted with from one to three independently selected from R27; R29 is selected from the group consisting of hydrogen and  $C_1-C_4$  alkyl;

10 (j) R10, R11 are each independently selected from the group consisting of hydrogen, hydroxy, cyano, nitro, halo, oxo, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkyl-COOR12'', C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> haloalkyl, C<sub>1</sub>-C<sub>6</sub> haloalkyloxy, C<sub>3</sub>-C<sub>7</sub> cycloalkyl, aryl-C<sub>0</sub>-4-alkyl, aryl-C<sub>1</sub>-4-heteroalkyl, heteroaryl-C<sub>0</sub>-4-alkyl, C<sub>3</sub>-C<sub>6</sub> cycloalkylaryl-C<sub>0</sub>-2-alkyl, aryloxy, C(O)R13', COOR14', OC(O)R15', OS(O)<sub>2</sub>R16', N(R17')<sub>2</sub>, NR18'C(O)R19', NR20'SO<sub>2</sub>R21', SR22', S(O)R23', S(O)<sub>2</sub>R24', and S(O)<sub>2</sub>N(R25')<sub>2</sub>; and wherein aryl-C<sub>0</sub>-4-alkyl, aryl-C<sub>1</sub>-4-heteroalkyl, heteroaryl-C<sub>0</sub>-4-alkyl, and C<sub>3</sub>-C<sub>6</sub> cycloalkylaryl-C<sub>0</sub>-2-alkyl are each optionally substituted with from one to three independently selected from R28;

15 (k) R12', R12'', R13', R14', R15', R16', R17', R18', R19', R20', R21', R22', R23', R24', and R25' are each independently selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl and aryl; and

20 (l) R30 is selected from the group consisting of C<sub>1</sub>-C<sub>6</sub> alkyl, aryl-C<sub>0</sub>-4-alkyl, aryl-C<sub>1</sub>-4-heteroalkyl, heteroaryl-C<sub>0</sub>-4-alkyl, and C<sub>3</sub>-C<sub>6</sub> cycloalkylaryl-C<sub>0</sub>-2-alkyl, and wherein C<sub>1</sub>-C<sub>6</sub> alkyl, aryl-C<sub>0</sub>-4-alkyl, aryl-C<sub>1</sub>-4-heteroalkyl, heteroaryl-C<sub>0</sub>-4-alkyl, and C<sub>3</sub>-C<sub>6</sub> cycloalkylaryl-C<sub>0</sub>-2-alkyl are

each optionally substituted with from one to three substituents each independently selected from R31.

5. A compound as claimed by any one of Claims 1 through 4 wherein X is -O-.
6. A compound as claimed by any one of Claims 1 through 4 wherein X is -S-.
7. A compound as claimed by any one of Claims 1 through 6 wherein R4 is selected from the group consisting of C<sub>1</sub>-C<sub>5</sub> alkoxy, aryloxy, and 10 arylC<sub>0</sub>-C<sub>4</sub> alkyl.
8. A compound as claimed by any one of Claims 2 through 7 wherein Y is O.
9. A compound as claimed by any one of Claims 1 through 7 wherein Y is C.
15. A compound as claimed by any one of Claims 1 through 7 wherein Y is S.
11. A compound as claimed by any one of Claims 1 through 10 wherein E is C(R3)(R4)A.
12. A compound as claimed by any one of Claims 1 through 11 wherein A is carboxyl.
20. A compound as claimed by any one of Claims 1 through 12 wherein R1 is H.
14. A compound as claimed by any one of Claims 1 through 12 wherein A is COOH and R1 is H.
25. A compound as claimed by any one of Claims 1 through 14 wherein R10 is haloalkyl.
16. A compound as claimed by any one of Claims 1 through 15 wherein R10 is CF<sub>3</sub>.
17. A compound as claimed by any one of Claims 1 through 14, wherein R10 is haloalkyloxy.
30. A compound as claimed by any one of Claims 1 through 17 wherein R10 and R11 are each

independently selected from the group consisting of hydrogen, halo, oxo, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkyl-COOR12'', C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> haloalkyl, and C<sub>1</sub>-C<sub>6</sub> haloalkyloxy.

5        19. A compound as claimed by any one of Claims 1 through 14 wherein R10 is selected from the group consisting of C<sub>3</sub>-C<sub>7</sub> cycloalkyl, aryl-C<sub>0-4</sub>-alkyl, aryl-C<sub>1-4</sub>-heteroalkyl, heteroaryl-C<sub>0-4</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub> cycloalkylaryl-C<sub>0-2</sub>-alkyl, and aryloxy.

10      20. A compound as claimed by any one of Claims 1 through 19 wherein R8 and R9 are each independently selected from the group consisting of hydrogen and C<sub>1</sub>-C<sub>3</sub> alkyl.

15      21. A compound as claimed by any one of Claims 1 through 20 wherein R3, and R4 are each independently selected from the group consisting of C<sub>1</sub>-C<sub>2</sub> alkyl.

20      22. A compound as claimed by any one of Claims 1 through 20 wherein R3, and R4 are each independently selected from the group consisting of hydrogen and C<sub>1</sub>-C<sub>2</sub> alkyl.

25      23. A compound as claimed by any one of Claims 6 through 22, wherein X-U is optionally substituted -S(CH<sub>2</sub>)<sub>2</sub>.

24. A compound as claimed by any one of Claims 1 through 23 wherein U is C<sub>1</sub>-C<sub>3</sub> alkyl.

25. A compound as claimed by Claim 24 wherein U is saturated.

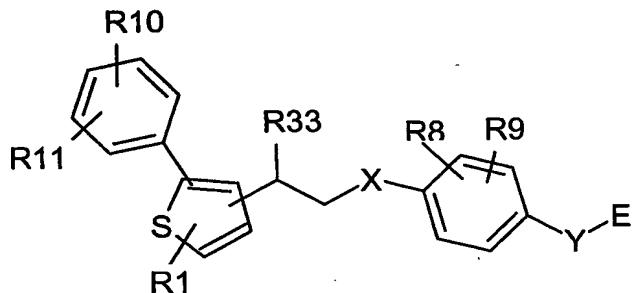
30      26. A compound as claimed by any one of Claims 1, 2, 3, 4, 23, 24, or 25 wherein U is substituted with C<sub>1</sub>-C<sub>3</sub> alkyl.

27. A compound as claimed by any one of Claims 1, 2, 3, 4, 23, 24, or 25 wherein U is substituted with arylC<sub>1</sub>-C<sub>4</sub>alkyl.

5 28. A compound as claimed by any one of Claims 23, 24, 25, 26, or 27 wherein one carbon of the U group is replaced with an -O-.

29. A compound as claimed by any one of Claims 1 through 28 wherein R1 is selected from the group consisting of phenyl and pyridyl.

10 30. A compound as claimed by any one of Claims 1 through 22, or 29 represented by the following Structural Formula II:

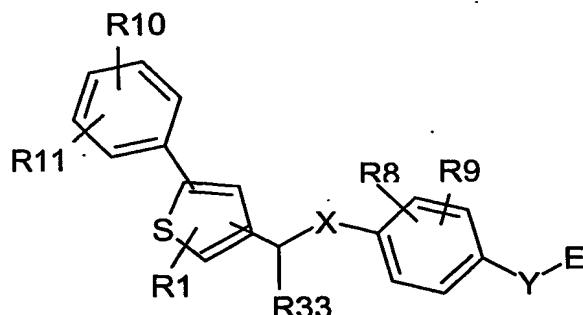


wherein R33 is

selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>3</sub> alkyl, and arylC<sub>0</sub>-C<sub>4</sub> alkyl.

15 31. A compound as claimed by Claim 30 wherein R33 is arylC<sub>1</sub>-C<sub>4</sub> alkyl.

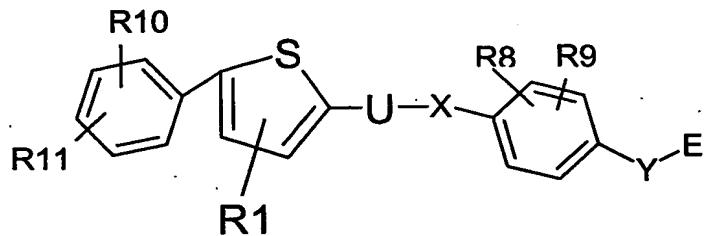
32. A compound as claimed by any one of Claims 1 through 22, or 29 represented by the following Structural Formula III:



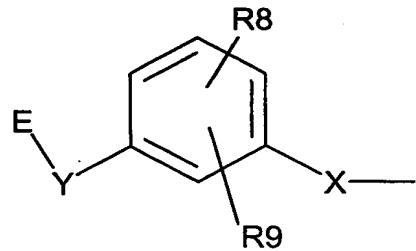
R33 is selected

from the group consisting of hydrogen, C<sub>1</sub>-C<sub>3</sub> alkyl, and arylC<sub>0</sub>-C<sub>4</sub> alkyl.

33. A compound as claimed by any one of Claims 1 through 29 represented by the following  
5 Structural Formula IV:



34. A compound as claimed by any one of Claims 1 through 29 wherein the headpiece of Formula I



is:

10 35. A compound as claimed by any one of Claims 1 through 34 wherein R4 is selected from the group consisting of C<sub>1</sub>-C<sub>5</sub> alkyl, C<sub>1</sub>-C<sub>5</sub> alkoxy, aryloxy, C<sub>3</sub>-C<sub>6</sub> cycloalkyl, and aryl C<sub>0</sub>-C<sub>4</sub> alkyl, and wherein alkyl, alkoxy, cycloalkyl and aryl-alkyl are each optionally substituted with one to three each independently selected from R26.

15 36. A compound as claimed by any one of Claims 1 through 35 wherein E is C(R<sub>3</sub>)(R<sub>4</sub>)A.

20 37. A compound as claimed by any one of Claims 1 through 35 wherein A is COOH.

38. A compound as claimed by any one of Claims 1 through 4, wherein the compound is selected from the group consisting of (2-Methyl-4-{2-[3-methyl-5-(4-trifluoromethyl-phenyl)-thiophen-2-yl]-propylsulfanyl}-phenoxy)-acetic acid, (2-Methyl-4-{2-[3-methyl-5-(4-trifluoromethyl-phenyl)-thiophen-2-yl]-propylsulfanyl}-phenoxy)-acetic acid, 3-(2-Methyl-4-{2-[3-methyl-5-(4-trifluoromethyl-phenyl)-thiophen-2-yl]-propylsulfanyl}-phenyl)-propionic acid, and (3-{2-[3-Methyl-5-(4-trifluoromethyl-phenyl)-thiophen-2-yl]-propoxy}-phenyl)-acetic.

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39. A compound as claimed by any one of Claims 1 through 4 that is (3-{2-[3-Methyl-5-(4-trifluoromethyl-phenyl)-thiophen-2-yl]-propoxy}-phenyl)-acetic.

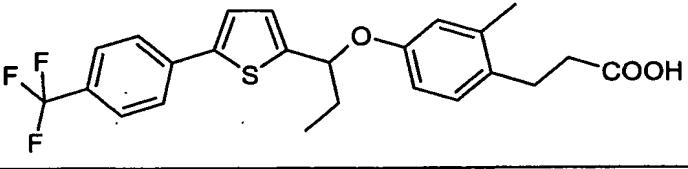
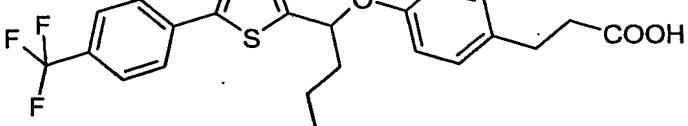
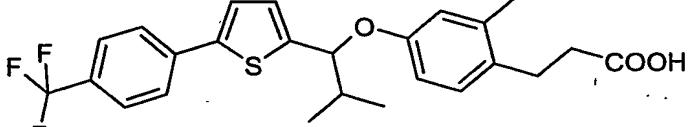
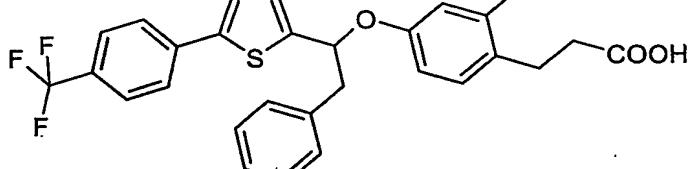
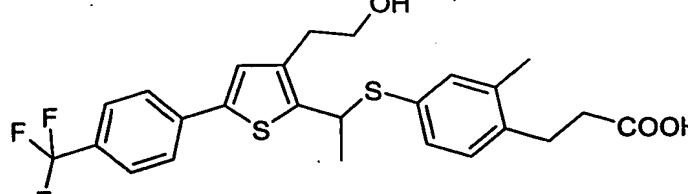
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40. A compound as claimed by any one of Claims 1 through 4 wherein the compound is selected from the group consisting of

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Compound	Name
	3-{2-Methyl-4-[5-(4-trifluoromethyl-phenyl)-thiophen-2-ylmethoxy]-phenyl}-propionic acid
	{2-Methyl-4-[5-(4-trifluoromethyl-phenyl)-thiophen-2-ylmethoxy]-phenoxy}-acetic acid
	3-{2-Methyl-4-[3-phenyl-5-(4-trifluoromethyl-phenyl)-thiophen-2-ylmethoxy]-phenyl}-propionic acid

	3-[2-Methyl-4-{1-[3-methyl-5-(4-trifluoromethyl-phenyl)-thiophen-2-yl]-propoxy}-phenyl]-propionic acid
	3-[2-Methyl-4-{1-[3-methyl-5-(4-trifluoromethyl-phenyl)-thiophen-2-yl]-butoxy}-phenyl]-propionic acid
	3-[2-Methyl-4-{2-methyl-1-[3-methyl-5-(4-trifluoromethyl-phenyl)-thiophen-2-yl]-propoxy}-phenyl]-propionic acid
	3-[2-Methyl-4-{1-[3-methyl-5-(4-trifluoromethyl-phenyl)-thiophen-2-yl]-2-phenyl-ethoxy}-phenyl]-propionic acid
	3-(4-{1-[3-(2-Hydroxyethyl)-5-(4-trifluoromethyl-phenyl)-thiophen-2-yl]-ethylsulfanyl}-2-methyl-phenyl)-propionic acid

41. A compound as claimed by any one of Claims 1 through 4 which is selected from the group consisting of {2-Methyl-4-[5-(4-trifluoromethyl-phenyl)-thiophen-2-ylmethoxy]-phenoxy}-acetic acid and 3-[2-Methyl-4-[5-(4-

trifluoromethyl-phenyl)-thiophen-2-ylmethoxy]-phenyl}-propionic acid.

42. A compound as claimed by any one of Claims 1 through 38 which is the S conformation.

5 43. A compound as claimed by any one of Claims 1 through 38 which is the R conformation.

44. A pharmaceutical composition, comprising as an active ingredient, at least one compound as claimed by any one of Claims 1 through 43 together with a pharmaceutically acceptable carrier or diluent.

10 45. A method of modulating a peroxisome proliferator activated receptor, comprising the step of activating the receptor with at least one compound as claimed by any one of Claims 1 through 43.

15 46. A method of treating diabetes mellitus in a mammal, comprising the step of administering to the mammal in need thereof, a therapeutically effective amount of at least one compound of Claims 1 through 43.

20 47. A method of treating Metabolic syndrome in a mammal, comprising the step of administering to the mammal in need thereof a therapeutically effective amount of at least one compound of Claims 1 through 43.

25 48. A method of selectively modulating a PPAR delta receptor comprising administering a compound as claimed by any one of Claims 1 through 43 to a mammal in need thereof.

30 49. The manufacture of a medicament for use in the treatment and/or prevention of a condition

mediated by nuclear receptors, in particular by a peroxisome proliferator activated receptor, wherein the compound is a compound as claimed by any one of Claims 1 through 43.

5 50. A method of treating atherosclerosis in a mammal, comprising the step of administering to the mammal in need thereof a therapeutically effective amount of at least one compound of Claims 1 through 43.

10 51. A method for treating or preventing the progression of cardiovascular disease in a mammal in need thereof comprising administering a therapeutically effective amount of a compound as Claimed by any one of Claims 1 through 43.

15 52. A method as claimed by Claim 51 wherein the mammal is diagnosed as being in need of such treatment.

20 53. A method of treating arthritis in a mammal, comprising the step of administering to the mammal in need thereof, a therapeutically effective amount of at least one compound as claimed by any one of Claims 1 through 43.

25 54. A method of treating demyelinating disease in a mammal, comprising the step of administering to the mammal in need thereof, a therapeutically effective amount of at least one compound as claimed by any one of Claims 1 through 43.

30 55. A method of treating inflammatory disease in a mammal, comprising the step of administering to the mammal in need thereof, a therapeutically effective amount of at least

one compound as claimed by any one of Claims 1 through 43.

56. A method as claimed by any one of Claims 53, 54, and 55 wherein such mammal is diagnosed as being in need of such treatment.

57. A compound as claimed by any one of Claims 1 through 43 for use as a pharmaceutical.

58. A compound as claimed by any one of Claims 1 through 43 wherein the compound is radiolabeled.

10 59. A compound as disclosed by any one of the Examples herein.

60. All methods disclosed herein of preparing the compounds represented by Structural Formula I.